AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning on page 3, line 27 and ending on page 4, line 21 with the following amended paragraph:

At least one of elements **130** includes a first switchable element **170**. First switchable element **170** may be activated ~~beween~~ between a number of unique states, where for each state, first switchable element **170** is capable of performing a unique optical transform (or filter function). ~~Preferrably~~ Preferably, first switchable element **170** may be activated between two states, however, in general, any number of states may be utilized by first switchable element **170**. ~~Preferrably~~ Preferably, the transform performed by first switchable element **170** is similar to that of a thin lens. For example, first switchable element **170** may be activated into a first-switchable-element first-state (FSE 0-state), having the property of an FSE 0-state focal length **180**. Similarly, first switchable element **170** may be activated into a first-switchable-element second-state (FSE 1-state) having an FSE 1-state focal length **190**. First Module **120** may also incorporate a second switchable element **200**. Second switchable element **200** may be activated into a second-switchable-element first-state (SSE 0-state), having the property of an SSE 0-state focal length **210**. Similarly, second switchable element **200** may be activated into a second-switchable-element second-state (SSE 1-state) having an SSE 1-state focal length **220**. In this fashion, First Module **120** may also incorporate additional switchable elements **230**. In this fashion, first module **120** may incorporate a number of switchable elements, *N*, indicated generally at **236** whereby each switchable element may be activated between a first state (0-state) and a second state (1-state) corresponding to a first focal length and a second focal length, respectively. Examples of switchable elements **170, 200** include without limitation liquid crystals (LCs), holographic optical elements, polymer-dispersed liquid crystals, nonlinear optical lenses, electro-optic elements, electro-optic lenses, LC lenses, LC prisms, LC gratings, LC shutters, LC aperture stops, LC irises, polymer dispersed liquid crystals, switchable holographic optical elements (HOEs), polarization rotators, isotropic, uniaxial, biaxial and/or other anisotropic optical materials, deformable mirrors and deformable gratings, and micro-electro-mechanical systems (MEMS) and MEMS mirrors. Similarly, a second module **240** and third module **250**, and in general, any number of additional modules (not shown), may be incorporated in system **110**.

Please replace the paragraph beginning on page 5, line 4 and ending on page 5, line 7 with the following amended paragraph:

For the ~~remainor~~ remainder of this discussion, the parenthesis *(state)* will be dropped from the symbol $\delta_{m,n}$ for simplification. It follows that a $\delta_{m,n}$ will be specified for each switchable element n in module m. Also, it will be seen that $\delta_{m,n}$ is similar to delta functions commonly used in the field of Fourier analysis.

Please replace the paragraph beginning on page 13, line 10 and ending on page 14, line 24 with the following amended paragraph:

Referring now to FIG. 4, a stack of switchable elements according to an embodiment of the present invention is shown and indicated generally at **800**. Stack **800** includes switchable elements, generally indicated at **750, 752, 754**. While three elements **750, 752, 754** are shown, any number may be employed in stack **800**. Elements **750, 752, 754** may each include a liquid crystal lens interposed between substrates **832, 834, 836, 838**. Substrates **832, 834, 836, 838** are at least partially transparent to light **820, 830** transmitted through stack **800**. Substrates **832, 834, 836, 838** may comprise glass, plastic, acrylic resin, polymer, crystal, thin films or other materials known to provide a structure for layered electro-optic devices. Substrates **832, 834, 836, 838** each have a first substrate surface and a second substrate surface **839** and **840, 842** and **844, 846** and **848, 850** and **852,** respectively. At least a portion of substrate surfaces **839, 840, 842, 844, 846, 848, 850, 852** can include an antireflection coating as may be desirable for minimizing the loss of light **820, 830** transmitted through stack **800**. At least a portion of substrate surfaces **840, 842, 844, 846, 848, 850** are deposited with a generally transparent electrical conductors such as indium tin oxide or conducting polymer. Deposited on the conductive substrate surfaces **840, 842, 844, 846, 848, 850** are lens function layers **860, 862, 864, 866, 868, 870**. Lens function layers **860, 862, 864, 866, 868, 870** may consist of materials that may patterned and include without limitation polymer, epoxy, polymer-dispersed liquid crystal, poly (methyl methacrylate) (PMMA) or photoresist. Lens function layers **860, 862, 864, 866, 868, 870** are at least partially

transparent to light **820, 830** transmitted through stack **800**. A portion of the lens function layers **860, 862, 864, 866, 868, 870** also are patterned such that the thickness, index of refraction, transmittance, scattering, absorption or other optical property of each layer spatially varies, and, in turn, may perform a phase, amplitude and/or frequency modifying function on light transmitted through the layers. Lens function layers **860, 862, 864, 866, 868, 870** may be patterned using techniques that include without limitation as optical lithography, electron-beam lithography, UV light exposure, holographic, laser or other interferometry, or contact pattern transfer from a patterned substrate to a portion of the lens function layers. Preferably, lens function layers **860, 862, 864, 866, 868, 870** are patterned with a lens function including without limitation, the optical properties of lenses such as thin, thick, Fresnel, concave, convex, binary, diffracting, aspheric, on-axis, off-axis, cylindrical, holographic and other lenses. Lens function layers **860, 862, 864, 866, 868, 870** may also include alignment grooves or additional alignment layers to provide a desired orientation or alignment of liquid crystal monomers. Lens function layers **860, 862, 864, 866, 868, 870** are preferably separated by spacers **880, 881, 882, 883, 884, 885**. Spacers **880, 881, 882, 883, 884, 885** serve to provide cells **890, 892, 894** between adjacent pairs of layers **860, 862, 864, 866, 868, 870**, and may comprise such materials as mylar, photoresist, glass fiber, glass or plastic spheres or other films or materials of generally uniform or controlled thickness. At least a portion of cells **890, 892, 894** are filled with liquid crystal fluid **900, 902, 904**. Liquid crystal **900, 902, 904** may include without limitation one or more of a liquid crystal material, liquid crystal, doped liquid crystal, doped liquid crystal material, a nematic liquid crystal, a nematic liquid crystal material, a ~~smetic~~ <u>smectic</u> liquid crystal, a ~~smetic~~ <u>smectic</u> liquid crystal material, a ferroelectric liquid crystal, a ferroelectric liquid crystal material or a polymer dispersed liquid crystal material. Conductor surfaces **840, 842, 844, 846, 848, 850** are connected to control cables **910, 912, 914**. Control cables **910, 912, 914** are connected to controller **772**. Controller **772** provides voltage to control cables **910, 912, 914** and provides electric fields across pairs of conducting surfaces **840, 842, 844, 846, 848, 850** which control the molecular orientation of liquid crystal **900, 902, 904**.

Please replace the paragraph beginning on page 16, line 23 and ending on page 17, line 8 with the following amended paragraph:

A fourth lens function layer **866** is deposited on second spacers **882**, **883** thereby forming a second cell **892**. Fourth lens function layer **866** may include a number of optical phase- and/or amplitude- modifying functions. Fourth lens function layer **866** is deposited on a third conductive surface **1182**. Third conductive surface **1182** is deposited on a second transparent film **1102**. Second transparent film **1102** may be comprised of optically transparent materials including without limitation glass, vinyl-acetate, plastic or polymer. Second transparent film **1102** may include an optical phase modifying function imbedded in it. A fifth lens function layer **868** is deposited on second transparent film **1102**. Fifth lens function layer **868** may include a number of optical phase- and/or amplitude- modifying functions. Third spacers **884**, **885** are deposited on fifth polymer layer **868**. A sixth lens function layer **870** is deposited on third spacers **884**, **885** thereby forming a third cell **894**. Sixth lens function layer **870** may include a number of optical phase- and/or amplitude- modifying functions imbedded in it. Sixth polymer layer **870** is deposited on a fourth conductive surface **1184**. Fourth conductive surface **1184** is deposited on a second transparent substrate **1200**. Liquid crystal material **1206**, **1207**, **1208** is deposited in cells **890**, **892**, **894**, respectively. Liquid crystal may include one or more of a liquid crystal material, liquid crystal, doped liquid crystal, doped liquid crystal material, a nematic liquid crystal, a nematic liquid crystal material, a ~~smetic~~ smectic liquid crystal, a ~~smetic~~ smectic liquid crystal material, a ferroelectric liquid crystal, or a ferroelectric liquid crystal material.